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ABSTRACT

This workshop was presented on outcome-based education and described how the instructional method called mastery learning compliments it and can be adapted for social work education. Although outcome-based education involves creating clearly outlined expected student outcomes, by itself it is not an instructional method. Mastery learning is a behavioral instructional method that involves using time flexibly to increase student learning. Some of the essential elements of mastery learning include: (1) choosing instructional content; (2) writing instructional objectives; (3) performing vertical and horizontal curriculum alignment; (4) communicating learning objectives to students; and (5) criterion referenced instead of norm referenced grading. Mastery learning has been successfully used in higher education and social work education. The essential elements of mastery learning can be implemented in whole or in part, and in ways ranging from simple to complex. Several ways are discussed on how social work educators can implement mastery learning to better fit classroom use, including classroom structure, testing, and grading. A cautionary note on how to anticipate time involvement for faculty is discussed. Overall, social work educators may find that mastery learning provides them with increased awareness and control over the essential content taught in their classrooms. (Contains 3 figures and 55 references.) (JDM)

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Creatively Adapting Mastery Learning and Outcome-Based Education to the Social Work Classroom

A workshop presented at the joint conference of the
International Federation of Social Workers &
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Creatively Adapting Mastery Learning and Outcome-Based Education to the Social Work Classroom

ABSTRACT

This workshop presents outcome-based education and describes how the instructional method called mastery learning can be structured in the social work classroom. Although outcome-based education involves creating clearly outlined expected student outcomes, by itself it is not an instructional method. Mastery learning is a behavioral instructional method that complements outcome-based education. Mastery learning has been successfully used in higher education and social work education. The essential elements of mastery learning can be implemented in whole or part, and in ways ranging from simple to complex. How social work educators can implement mastery learning to better fit their classrooms is presented.

INTRODUCTION

What is outcome-based education and what does it look like in the social work classroom? Outcome-based education shares similarities with competency-based education, which was popular in social work education in the 1970s (Arkava & Brennen, 1976; Kasworm, 1980; Neill, 1978). Perhaps the most distinguishing feature of both outcome-based and competency-based education is that the instructional process proceeds "backwards" from the terminal objectives students must attain (Arkava & Brennen 1976; Murphy, 1984; Spady, 1980). Utilizing outcome-based education requires social work educators to first clarify the terminal objectives students must attain before creating supporting instructional materials and testing. We can clarify what we expect our students to know, or utilize any materials that outline the competencies social work students should attain (Baer & Federico, 1978).

The backward direction of outcome-based education is in contrast to the common practice of teaching instructional content first and then creating testing. Utilizing outcome-based education means we cannot manage our courses by 'staying one chapter ahead of the students.' Although clearly outlining expected educational outcomes is a main feature of outcome-based education, it is not instruction. Thus, a major criticism of outcome-based and competency-based education was that although it helped educators to clarify the outcomes expected from students, it offered no guidance about teaching students to display those outcomes (Gross, 1981; Spady, 1980).

The instructional method called mastery learning complements outcome-based education because mastery learning is a 'backwards driven' instructional method.

Mastery learning has roots in behaviorism, as is evident with its emphasis on clearly defined learning objectives, repeated practice and feedback, and repeated learning trials. Behavioral teaching methods are also called "diagnostic and prescriptive" because instructors manage and direct the learning process in order to help students achieve the desired terminal objectives or outcomes (Hymel, 1992).

Mastery learning is the group-based implementation of the Carroll (1963) model of school learning. The Carroll model suggests learning depends on the amount of time needed to learn, and time allowed to learn. Learning should increase as time allowed increases. In other words, achievement is held constant and time allowed is varied, instead of holding time constant (e.g., one semester) and allowing student achievement to vary (ex: the normal score distribution) (Bloom, 1968, 1984; Carroll, 1963). Mastery learning involves using time flexibly to increase student learning. Students are given extra time to take parallel exams or redo projects until attaining the expected outcome, or reaching what an instructor decides is "mastery." The additional time allows students to clarify poorly understood material before retesting.

Mastery learning has been implemented in all educational levels and studied enough to warrant two meta-analyses that included research studies in higher education (Guskey & Pigott, 1988; Kulik, Kulik & Bangert-Drowns, 1990). The higher education studies all reported positive results using achievement (generally exam or course grades) as an outcome measure. Mastery learning was also implemented in a BSW level course with positive results (Aviles, 1996). Reviewing the research studies revealed that the essential elements of mastery learning were implemented in whole or part, implemented very differently and in some cases not implemented at all. Today we

will review the essential instructional elements of mastery learning and consider how to implement them in the social work classroom.

Essential Elements of Mastery Learning

Mastery learning has several essential elements that may or may not be incorporated into the social work classroom and structured differently (Anderson, 1981, 1993; Block, 1974; Bloom, 1968, 1984; Guskey, 1987; Kulik, Kulik, & Bangert-Drowns, 1990). Figure one includes the essential elements of mastery learning. Most of the mastery elements can be structured either very simply or in complex ways. The potential structure of the mastery elements is described below.

Figure 1. The Essential Elements of Mastery Learning

- Choosing instructional content
- Writing instructional objectives
- Performing vertical and horizontal curriculum alignment
- Communicating learning objectives to students
- Formative and summative evaluations
- Feedback and correctives
- Retesting cycles
- Criterion referenced instead of Norm referenced grading

Choosing Instructional Content

Choosing instructional content refers to determining what course content to teach and is not particular to mastery learning. Instructional content should be considered essential only if it supports terminal instructional objectives. Content not supporting the terminal objectives can be considered supplementary and may or may not be taught. Spending instructional time only on essential content may make social work educators more time efficient in the classroom since time is not spent on nonessential content. Focusing on essential content also may make it easier for instructors to decide if issues brought up in

class sidetrack or support terminal instructional objectives. Social work educators have some freedom in determining essential course content and may use departmental requirements and the Council of Social Work Education curriculum policy statement for guidance. Text book chapters can be used to help break the content into learning units or instructors can divide the content in any way that makes sense for the course or department (Block, Efthim & Burns, 1989; Daines, 1982; Guskey, 1985). Ideally, instruction cannot begin until the essential content is chosen.

Writing Instructional Objectives

Writing instructional objectives is not specific to mastery learning. However, instructional objectives should be made explicit enough so students and instructors both understand the learning expectations. Instructional objectives can be written with Bloom's (1956) taxonomy of six educational objectives (e.g., knowledge, comprehension, application, analysis, synthesis, and evaluation); or another typology of knowledge. A taxonomy of knowledge can help educators write specific and detailed instructional objectives. However, social work educators also can simply decide what students must know as clearly and explicitly as possible. Figure two includes Bloom's taxonomy of educational objectives along with words corresponding to common student learning objectives.

Figure 2. Bloom's Taxonomy and Common Student Expectations

Knowledge Level	Common Student Expectations
Knowledge	Define, identify, state, list, differentiate, discriminate, recognize
Comprehension	Explain, translate, interpret, match, extrapolate
Application	Construct, choose, predict, demonstrate
Analysis	Distinguish, separate, organize, infer, classify
Synthesis	Compose, formulate, create, produce
Evaluation	Debate, judge, critique, assess, compare

Note: Adapted from: Bloom, Hastings & Madaus, 1971; Green, 1970.

Curriculum Alignment

Curriculum alignment refers to the similarity of content taught and tested (Guskey, 1985; Cohen & Hyman, 1991). The similarity includes instructional content (horizontal alignment) and knowledge level (vertical alignment). "Horizontal" refers to the linear progression of material from lesson planning through teaching and testing. Material is horizontally aligned when it is both taught and tested. Vertical alignment refers to the hierarchical nature of Bloom's (1956) taxonomy of educational objectives. Material is vertically aligned if it is taught and tested at the same taxonomy knowledge level. Instructors should do both and be clear about what material they intend to teach and test, and to what knowledge level students must know the material. Writing explicit instructional objectives facilitates matching what is taught and tested (Guskey, 1985).

In a social work practice course for example, vertical alignment refers to the difference between a student knowing the elements of a process recording (knowledge), producing one (synthesis) and critiquing one (evaluation). Material is vertically aligned when an

instructor teaches and tests to the same expected knowledge levels. Material is poorly aligned when an instructor simply teaches the elements of a process recording (knowledge) but expects students to produce one (synthesis). Horizontal alignment refers to testing all essential course content instead of only a sample. It can be argued that if course content is truly essential it should be tested to verify if students learned it. Instructors must determine if they will spend instructional time on content that will not be tested and reduce time left for essential content. Again, these decisions must occur before instruction begins.

A table of specifications can help social work educators check for curriculum alignment. A table of specifications is a chart that can include information about what will be taught and tested (Bloom, Hastings & Madaus, 1971; Gentile, 1990; Gronlund, 1981; Guskey, 1985). At its simplest, instructors could note that "Mary Richmond" would be taught in unit one, or use the course topical outline to identify material to be taught. Alternatively, a table of specifications could include the terms and facts students must know for each learning unit or concept. Even more examples could include a) how many exam questions test a concept, b) knowledge levels expected, and c) corresponding test items. The table of specifications allows educators to "see" if any exam questions did not connect with some content or if any essential content had no exam questions (Aviles, 1996; Guskey, 1985; Squires, 1984, 1986; Torshen, 1977). Alternatively, the connection between teaching and testing also is revealed when social work educators review their exams and topical outlines and simply 'mark' what content on the topical outline has corresponding exam questions.

A table of specifications also can help to match instructional time and testing. For example, less instructional time may be spent on "Mary Richmond" if students are only expected to recognize her name and more time spent if students must critique her contribution to social work. Additionally, if the table of specifications shows when material is taught it can help in planning where (and if) nonessential content occurs during a course. For example, running out of time at the end of the semester is not a problem if nonessential content occurs there. Nonessential content could be used for enrichment purposes if time allows or skipped if it does not. Running out of time is a larger problem when the last material integrates prior material or if it connects to another course ("No professor, we did not get that far in Human Behavior 1"). Figure three includes five sample entries from a table of specifications for a learning unit about poverty. The specifications table includes how many exam questions test the material, and terms and facts students need to answer the questions.

Figure 3. Sample Table of Specifications for a Learning Unit on Poverty

Unit topics: History of poverty; social welfare programs; measuring poverty	Exam Questions	Terms, Facts needed
2. Elizabethan poor law	[a]N=1 [b]%=2	1601, 1st English poor law, forerunner of modern welfare system
3. Social security act	N=1 %=2	1935, 1st American social welfare policy, written during economic depression.
4. War on poverty	N=4 %=8	1964, revision of social security act, Medicare, Medicaid, food stamps, job training
10. Poverty line-absolute	N=5 %=10	USA Poverty line ($15,600), multiplication factor (3.0), food budget (1.19)
14. Poverty population: race, age, gender, location, under-class, urban/rural	N=19 %=38	Size/composition of poverty population using numbers, percents, proportions: for all demographic categories.
TOTALS	N=50 %=100	

[a] N= Number of exam questions on that topic
[b] %= Percent of exam questions on that topic

Communicating Objectives

Instructional objectives should be communicated to students so they can study the essential content. Social work educators could simply tell students what to study or write detailed study guides. Study guides have no ideal form or frequency. Telling students what to study may be the easiest for instructors, but written study guides can act a study reference and help students focus on essential material. Study guides could simply list essential content (as a topical outline does), or contain questions students must answer. Written study guides may help students realize they cannot answer a study question. More complex study guides have enough space left beneath the questions for students

to record their lecture notes. Study guide/lecture outlines go furthest in detail and in focusing students on essential content because students would "see" a blank space under any unanswered questions. Answering study guide questions in order can help instructors resume where they ended in previous classes by simply asking students what study question was answered last.

Formative Evaluations

Formative evaluations are often short, ungraded quizzes that are immediately scored to help students identify their learning errors. Their purpose is to check the progress, but not grade, student learning (Bloom, Hastings & Madaus, 1971). An instructor could simply ask questions about course material or have written quizzes. Asking questions may not allow instructors to reach students who do not speak up. Written objective format quizzes allow all students to be evaluated.

The ideal number of quizzes is unknown. Examining several mastery learning studies revealed that quizzes occurred anywhere from weekly to not at all (Guskey & Pigott, 1988; Kulik, Kulik & Bangert-Drowns, 1990). Frequent evaluation is implied with mastery learning to increase feedback on performance and increase chances that learning errors are corrected. For example, weekly quizzes allow instructors to determine before "mid term" if students understand the material. However, more test questions must be located or created for weekly quizzes. Instructors also must decide if quizzes will be as difficult or more difficult than the exams. Very difficult quizzes can demoralize students, while easier quizzes can make students think they know material better than they actually do. Regardless of length and frequency, quizzes should be scored in class so students and instructors see which questions were answered incorrectly. Students could check an

answer key as they finish, or the key could be put on overhead projector (or written on the board) when everyone finishes.

Summative Evaluations

Summative evaluations are usually graded exams (objective or other format) intended to measure student performance and are not particular to mastery learning. Instructors choose the exam frequency and format as they would with any teaching methods. Exam frequency can range from a single comprehensive final to the midterm-final exam format, or be more frequent. Frequent testing can shrink the size of the learning units being tested and allows for earlier and more frequent evaluation of student performance. Instructors may test with objective format exams, essays, papers or other projects. As mentioned previously, we cannot verify essential material was actually learned if it is not tested.

Feedback & Correctives

Feedback refers to instructors providing information on student learning and may be as simple as posting exam grades or be as detailed as student evaluations. Correctives refer to correcting student learning errors by re-teaching material, providing remedial material or using other methods. Correctives can be structured differently and involve at least four major variations. First, correctives can occur inside or outside class. For in-class correctives, time limits must be set so students needing additional correction do not hold the class back. Outside class correctives allow additional time without holding back an entire class. Instructors could use both, perhaps having a 15-minute in-class review session after a quiz or exam, and spending additional time outside class. Second, correctives may be required or voluntary. Voluntary outside class correctives are not always well attended by students and can result in lower grades compared to mandatory

correctives (Goldwater & Acker, 1975; Jones, 1975; Lewis, 1984). Mandatory correctives can help instructors reach students who incorrectly believe they need no additional help.

Third, correctives can occur with individual or many students. Correcting students individually should result in increases in grades because correction can target learning errors (Block, 1974; Bloom, 1976, 1984; Denton & Seymour, 1978; Yeany, 1979). However, individual correctives have been criticized as time intensive (Arlin, 1984; Fitzpatrick, 1985; Lewis, 1984; Palardy, 1986; Slavin, 1987, 1990). Group correction may be more time efficient for instructors when many students make similar errors. Fourth, correctives can be led by instructors or students. With an instructor present material can be clarified or re-taught. With student led correctives, students who understand the material help those who did not. Using students, teaching assistants or computers to give correctives is a more efficient use of instructor time, but control over the effectiveness of correctives may be lost (Anderson, 1978; Bloom, Hastings & Madaus, 1971; Danielson & Haupt, 1977). The instructor led format takes more time than the student led format, but the time can be minimized by working with groups of students (Aviles, 1996).

Choosing between instructor and student led correctives depends on whether students can identify and correct their learning errors (Anderson, 1978; Block, Efthim & Burns, 1989). For example, one learning error typology lists: a) content, b) process, and c) study errors (Anderson, 1978). Content errors occur when students lack essential material or content (for whatever reason). Content errors are corrected by providing missing data. Process errors occur when students misunderstand material or understand it to the wrong knowledge level. Re-teaching may not correct process errors. Correcting process errors involves helping students understand content to desired knowledge levels

after determining the content is present. For example, a student may know the poverty line is $15,600 but not understand how the poverty line relates to the poverty rate. Study errors refers to study and exam taking skills. Students who "cram" or simply read and reread their notes may benefit from new study skills more than new material. Having students explain why incorrect answers were chosen can help instructors determine which learning errors occurred. Ideally, content should be re-taught differently from the original presentation regardless of which learning errors occurred although the same presentation may be adequate when students missed the original one (Benson & Yeany, 1980; Vickery, 1985). Instructors must decide if their students or teaching assistants can identify and correct these learning errors. At best, students correct each others' mistakes and at worst, they all become confused together.

Re-testing Cycles

Re-testing refers to students taking parallel or alternative versions of quizzes or exams to provide students with additional study time. Students who do not master the material could take parallel versions of an exam (or rewrite a project) until reaching what an instructor decides is a minimum performance level. Re-testing allows verification that learning errors were corrected. Re-testing cycles refer to the number of times students can redo work or retake exams. Unlimited re-testing cycles give students the greatest opportunity to improve, but instructors must create or collect enough test questions to make this feasible. The time spent re-administering, re-scoring, and re-correcting quizzes or exams could be prohibitive without teaching assistants or computer support (Dunkleberger & Knight 1979; Nepote-Adams, 1991; Honeycutt, 1974). Re-testing cycles can be offered outside of class to minimize instructional time spent.

A retesting alternative is to retest only material answered incorrectly on the first attempt. However, with computer-scoring each answer key must be unique to the students errors. Taking an entire makeup exam may be more feasible. Another retesting option is to have students write a short targeted essay explaining why wrong answers they selected on an objective exam are wrong and why the correct choice is correct. Students must explain instead of simply choose an answer, and instructors must read and grade the explanations. Instructors also must decide when to allow makeup exams or rewrites. An instructor could require everyone not earning an A grade (or reaching some criterion) to retake an exam or rewrite a project, or only require it for failing students. Social work educators could vary the retesting format and conditions to see what works with their students.

Grading

Mastery learning uses criterion-referenced instead of norm referenced measurement to grade student performance (Bloom, Hastings & Madaus, 1971). Criterion referenced measurement compares performance to a standard and not the performance of other students as with norm-referenced measurement (the normal curve). Criterion referenced measurement may produce score distributions deviating from normal because all students could meet the criterion (Gronlund, 1981; Martuza, 1977). Criterion referenced measurement is consistent with a fundamental belief of mastery learning: all students are capable of achieving to higher levels if given enough time, feedback, correctives and clear learning goals.

Exams or projects should be graded individually so low scores are not 'averaged away' by high scores in other units. For example, an "F" on a client assessment learning unit and an "A" on an intervention planning learning unit do not average out to a "C". More likely, a student could write an excellent intervention plan that was based on a faulty family assessment (not jointly completed with the client, for example). In this case, the skills of both intervention and assessment need more work. A retesting cycle allows students to improve their deficient skills. Students should be told they must perform to a certain level in each learning unit and not expect to improve their grade by "doing better on the next exam."

Grading may employ traditional letter grades or mastery and non-mastery grades (M, NM). No external criterion exists for setting the mastery level for a given topic. Instructors choose which traditional letter grades show mastery or non-mastery and decide if re-testing cycles occur when mastery is not reached. A creative option is to grade exams and projects in tandem. For example, objective format exams could be graded as mastery or non-mastery and mastery converted to a score of 70%. In other words, exam scores from 70% to 100% all convert to a C. A grade of B would require a paper that meets an instructor standard (B or better for example). A grade of A would require a second more difficult or extensive paper.

Classroom Structure

Outcome-based education is not an instructional method and thus, it has no specific classroom structure. The essential elements of mastery learning have a classroom structure but their structure can be varied depending on instructor resources. This can make it difficult to picture what mastery learning can look like in the social work

classroom. I have taught with mastery learning for 14 years and have implemented it in the following way. I prepare all my instructional materials and tests before the semester begins. The advance preparation allows me to focus instructional time on essential content since I know what material will be tested. Clarifying the essential content beforehand also makes it easier to determine when students become sidetracked. Creating the table of specifications was tedious but it helped me to clarify what material to teach and how to sequence it.

My courses are split into three, instead of the traditional two, learning units (e.g. mid term and final exam). Each learning unit includes one, 20 question written study guide that students receive. The study guides include words corresponding to the knowledge levels of Bloom's (1956) taxonomy that students must demonstrate on the exams. I answer and review complex study guide questions in class and students answer the simpler ones on their own. For testing, each learning unit includes two, 15 question ungraded quizzes', one graded 50 question, objective format exam, and one graded makeup exam. The makeup exams are parallel versions of the exam with the same objective format and number of questions. I have written my own test questions because those from instructor manuals or colleagues often do not match my course content exactly. Writing test questions is time consuming, but it allows me to target my essential course content and prevents my having to defend the validity of test questions written by others.

I also utilize both in-class and outside class, instructor-led group feedback and correctives. After students check the answer key for the quizzes and exams, I spend about 20 minutes in class and about one hour outside class answering student questions about exams and quizzes. It is enlightening to see which test questions the

students found easy and difficult. When most students answer a test question incorrectly it may mean material was taught poorly (faulty teaching), taught correctly but understood poorly by the students (faulty learning or studying) or simply not taught.

All students who intend to take a makeup exam are required to attend a mandatory one-hour, outside class review session prior to the makeup exam. Students with an exam score below 70% are required to take a makeup exam. Students scoring above 70% on the exam can elect to take the makeup exam to improve their score but also must attend the outside class review session. Most students who take makeup exams have scored 70% or higher. The outside class format provides additional time to clarify and re-teach material without spending class time. Most students who take makeup exams have scored 70% or higher on their exams (sometimes 90%) but take makeup exams to raise their exam scores. In other words, the chance to improve grades motivated students to take makeup exams when they were not required to. Students take makeup exams as a group outside class time. With the group format, I spend one hour proctoring the makeup exam whether five or 50 students take it.

Taken together this means a student receives a study guide and uses a mix of lectures and text to answer the study guide questions. They take an ungraded quiz on the first half of the study guide, check their answers with the answer key and ask questions in class about incorrectly answered items for about 15 minutes. This 'teach & test' cadence is repeated for the second half of the study guide. The students then take a graded exam and again ask questions in class about incorrectly answered items. Students who are required or wish to take a makeup exam must attend a mandatory review session to help insure they do not repeat their mistakes on the makeup exams.

The 'quiz, quiz, exam, makeup exam' cadence is repeated in each learning unit, or three times during the semester. Currently I use a grade of "C" (score of 70% of 100%) as mastery however, I am about to raise this to a "B" and require "C" students to retake exams in order to raise my classroom performance standards.

Other mastery instructors have utilized more frequent quizzes and additional learning units than I have, and utilized retesting cycles for the quizzes, assuming that increased correction and retesting cycles can make exam retesting cycles unnecessary. Retesting cycles also can be implemented for written student projects. To make this option more feasible, students must submit their work on paper and on computer disk. I mark whatever needs improvement on the paper copy, students rewrite and edit these parts on disk and resubmit the paper. Rewrites require old and new passages to follow each other in text and be highlighted so I can quickly locate and compare them without rereading the entire paper. I have had success with this option in my courses that require written projects. Another retesting option could require students who answered an objective format test item incorrectly to write a short targeted essay explaining why the correct choice is correct, and why the choice they selected (or all the incorrect choices) are incorrect. I have found that students must understand the test item to a higher knowledge level because they cannot simply recognize or guess that choice 'D' is the correct answer. Students seem to dislike this retesting format because it takes more effort than completing another multiple-choice format makeup exam, and it does take additional instructor time to read and grade their explanations. Alternatively, students often report "studying harder" for the exam to avoid this retesting option. Social work educators have the freedom to decide on the format and the number of retesting cycles or rewrites to allow.

CAUTIONS

Perhaps because the mastery elements are linked, research has not clarified their ideal classroom structure. For example, the 'ideal' number of retesting cycles (if it exists) may be related to the degree learning errors are corrected. In other words, retesting cycles could be unnecessary with enough quizzes and correctives. Even if an ideal classroom structure for mastery learning does exist, we still would have to implement any instructional elements we want to try in the most feasible rather than ideal way. An important feasibility issue is instructor time spent because mastery learning has been criticized as time intensive (Abrams, 1979; Barber, 1979; Brown, 1977; Burns, 1987; Decker, 1989; Dunkleberger & Knight, 1979; Guskey, 1985; Honeycutt, 1974; Klein, 1979; Nepote-Adams, 1991). On the other hand, one meta-analysis found mastery learning required only about 4% more instructional time than control groups (Kulik, Kulik & Bangert-Drowns, 1990). I found mastery learning required only 6.75 more hours (21 hours total) than non-mastery instruction (Aviles, 1996).

Is mastery learning time intensive or not? Instructor time spent appears linked to the classroom structure of several mastery elements. For example, had I switched from group to individual correctives, my time spent during the semester would have increased by approximately 79 hours. Adding a second exam retesting cycle and a quiz retesting cycle, in addition to utilizing individual correctives, would have increased the instructor time required 127 hours! Bear in mind, unlimited retesting cycles would further increase instructor time spent! Less instructor time could be required by using: (a) teaching assistants to proctor makeup exams and lead correctives, (b) computer administration of quizzes, and (c) using existing test item banks. Social work educators

must consider the classroom structure of the mastery elements before implementation to project if additional time will be required. However, instructional materials must be created regardless of instructional method used. Depending on how the mastery elements are structured, the time required to use mastery learning could be similar to other instructional methods once materials are created.

In summary, mastery learning is a flexible, outcome-based teaching method. Since measuring student outcomes is a current concern in social work education, instructors could begin by simply clarifying what they teach and matching the testing and instructional time spent to what is expected of students. Social work educators also could begin by implementing only a few mastery elements while still using their normal teaching methods. Social work educators could go further and implement the mastery elements in ways that make sense for their courses given available resources and time. I believe social work educators who try mastery learning will find that they enjoy increased awareness and control over the essential content taught in their classrooms.

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